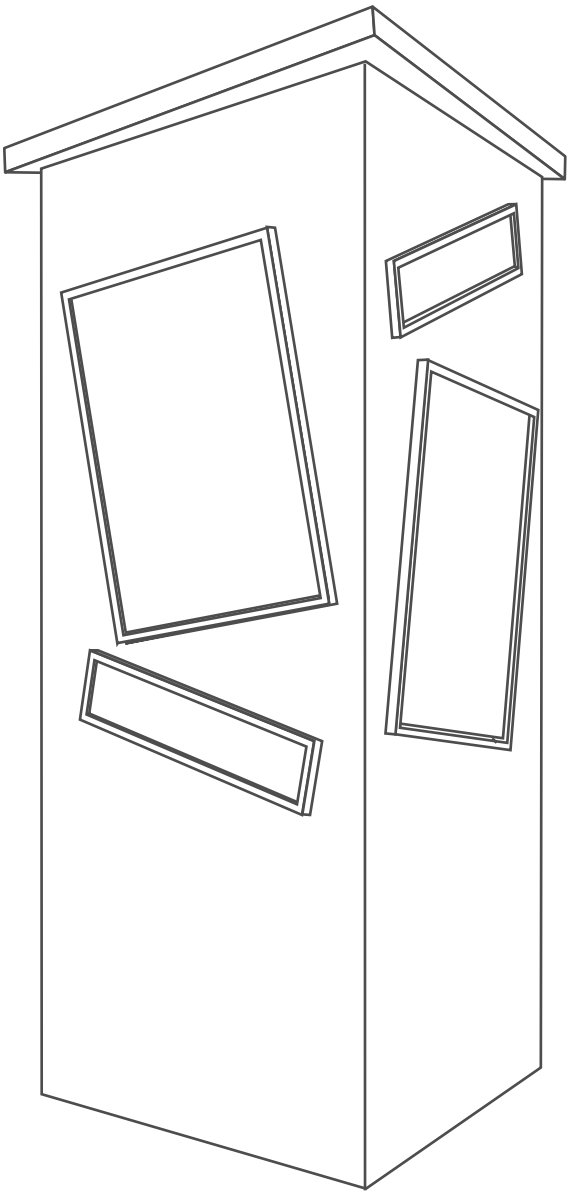
Electrically Illuminated Promotional Kiosk



A Step-By-Step How-To Guide

Materials And Tools Needed To Build The Promotional Kiosk

- 2 - ½"x4'x8' sheets AC plywood
- 3 - 1"x2"x12' pine boards
- 1 - 1"x4"x2' pine board
- 1 - 48" continuous hinge
- 1 - slide latch
- 1 - ⅛"x20"x60" clear plexiglass
- 1 - ¼"x20"x60" white plexiglass
- 1 lb. 1⅛" finish nails
- 1 qt. wood glue
- 1 qt. white latex enamel paint
- 3 - nylon floor glides
- 2 - fluorescent light fixtures with bulbs & cord
- 80-grit, 100-grit, and 150-grit sandpaper
- Table saw
- Hand saw
- Circular saw
- Miter saw
- Router with bits
- Hammer
- Screwdriver
- Handscrew clamps

Build The Promotional Kiosk For Less Than $250
Total Construction Takes Just 20 Hours

PROMOTIONAL KIOSK

Step-By-Step Instructions

Side Panels

1 Cross-cut a 4' × 8' sheet of ½"-thick plywood to 66" with a circular saw or panel saw.

2 Set the rip fence on your table saw at 24", and cut the side panels (A) by ripping the 66"-long sheet of plywood in half.

3 Set the blade on the saw to the proper angle to cut a 50° bevel (see *Detail 1*). Set the fence so the cut leaves a 23⅞"-wide workpiece (test on scrap wood to find the exact distance). Miter the joining edges of the side panels. Place the factory edge against the fence, with the smooth side of the plywood down when cutting the angle; this will position the smooth side out during assembly.

4 Set the blade on the saw to the proper angle to cut a 40° bevel (see *Detail 2*). Set the fence so the cut leaves a 23½"-wide workpiece. Place one side panel smooth-side-down, and cut off the factory edge on the panel. Repeat for other side panel.

5 Measure along the outside edge of each side panel and place a mark at 60". Using a straightedge, draw a line from the mark to the top point of the 50° beveled edge. This will provide the roof pitch with a 6" drop, from 66" to 60".

6 Label the panels with a pencil. With the smooth side facing you, the panel with the 60" side on the left is the left panel. The other panel is the right panel.

7 Set the base of your circular saw at the proper angle to cut a 13° bevel, and cut off the top end of each panel. Be sure that the smooth side will always be out before you cut any angles. In this case, the long side of the angle should be the smooth side.

8 Cut 16" × 20" and 15" × 5" pieces out of scrap plywood. These will be your templates for cutting the rough openings in the side panels.

9 To correctly locate the templates, measure along the 60" side of the left panel and place a mark 26¼" up from the bottom. Using a framing square, scribe a line across the panel. This will be your base line. Scribe another line 2" in from the 60" side, and mark it the entire length of the side. This will be your edge line. Finally, on the 66" side, place a mark 29¼" up from the bottom. Using a framing square, scribe a line approximately 6" long. This will be your angle line.

10 Place the 16" × 20" template so one corner is on the base line, one on the edge line and one on the angle line. Hold the template tight to the panel and trace a line around the entire template.

11 Along the 66" side, place a mark 2" above the top corner of the template outline. Use the square, and scribe the line across the panel. This will be your second baseline. Measure up 2¾" from this line along the 60" side, and place a mark. Scribe a line approximately 6" long. This will be your second angle line.

12 Place the 15" × 5" template so one corner is on the second base line and one is on the intersection of the second angle line and the edge line. Hold the template tight to the panel and trace a line around the entire template.

13 Lay out the right panel in similar fashion, but remember to reverse the order of the openings (see *Front View*).

14 Using a jigsaw or a circular saw and a straightedge guide clamped to the side panel, carefully cut out the marked window openings.

15 On the front side of the side panels, cut a ¼" × ¼"-deep rabbet around all the openings with a router and a pilot-bearing bit.

Back Panel

1 Cross-cut another sheet of ½"-thick plywood to 60", using a circular saw or panel saw to cut out the back panel (B).

2 Set the table saw blade to the proper angle to cut a 40° beveled edge (see *Detail 1*). Set the rip fence to 29". Cut a beveled edge along one of the 60" edges. Be sure to keep the smooth side down when cutting.

3 Set the rip fence so the cut leaves a 28¾"-wide workpiece. Rotate the workpiece 90° (same side down), and cut off the factory edge of the remaining 60" edge.

4 Mark an outline for the door by measuring and scribing lines 3" from the top, 5½" from the sides, and 5" from the bottom. Cut out the door, using the same method as in step 14 of the side panel section.

Corner Braces and Nailing Strips

1 Set the table saw blade to cut a 40° beveled edge, and cut a bevel on one side of a piece of 1" × 2" × 10' stock.

2 Reset the table saw blade to 0°, and cross-cut the same workpiece into two 60"-long pieces to make the side braces (F).

3 Set the table saw blade to cut a 50° beveled edge, and cut a bevel on one side of a 1" × 2" × 66" to make the front brace (E).

4 Set the table saw blade to cut a 13° beveled edge, and cut a bevel on one long side of a piece of 1" × 2" × 5' stock. Reset the saw to 0°, and cross-cut the stock into two 18" and one 24" piece to form the nailing strips (G, H).

5 Glue and clamp the front brace to the 66" side of the left panel, and both side braces to the inside edges of the back panel.

6 Glue and clamp the 24"-long nailing strip, centered at the top of the back panel. Do the same with the 18" nailing strips at the top of the left and right panels.

Plexiglass Panels

1 Cut two pieces of ¼"-thick white plexiglass 16⅜" × 20⅜", and two pieces 15⅜" × 5⅜". This allows a 1/16" cushion on each side when placed in the side panels.

2 Cut two pieces of ⅛" clear plexiglass 15⅞" × 19⅞", and two pieces 14⅞" × 4⅞".

3 Insert the white plexiglass into the appropriate panel openings. Set aside the clear plexiglass panels.

Window Molding

1 Set the table saw blade at 0° and the rip fence at 7/8", and rip a piece of 1" × 4" × 10' stock into two 1" × 7/8" × 10' strips for the window molding (J).

2 Cut a 1/4" × 3/16"-deep rabbet along one side of both strips (see *Detail 4*), using a router table and 1/4" bit.

3 Using a 1/4" radius beading bit in your router table, shape the two top edges of the window molding (see *Detail 4*).

4 Cross-cut one 1" × 7/8" × 10' strip in half. Rip the 5/8" × 3/16" lip off the entire length of one half (see *Detail 4*). The resulting 9/16" × 3/4" × 60" strip will be used for the entry slot in the frame for the clear plexiglass.

5 Cross-cut the strips into four 6 1/4" lengths, four 21 1/4" lengths, and eight 16 1/4" lengths. NOTE: Make sure to cut two of the 16 1/4" lengths and two of the 6 1/4" lengths from the 9/16" × 3/4" × 60" entry slot strip.

6 Miter the molding strips to fit each opening.

7 Glue and nail the frame molding to the panel with 1 1/8" finishing nails. NOTE: Overlap the white plexiglass with the molding by 1/2" on each side. Use the frame entry slot on the "uphill" side of each opening. Predrill the nail holes to prevent splitting.

Making the Door Stops

1 Rip 1/2"-thick plywood into two pieces 1 1/2" wide and 74 3/4" long to make the door stop strips (K).

2 Cross-cut each 74 3/4"-long strip 20 3/4" from one end.

3 Miter the door stop strips to border the inside of the door opening in the back panel, overlapping the entire opening by 1/2". Glue and clamp in place until the glue dries.

Assembling the Panels

1 Apply a bead of woodworker's glue to the front brace on the left panel.

2 Nail the right panel to the left panel using 1 1/8" finishing nails and let stand 30 minutes for the glue to set up.

3 Apply glue to both side braces on the back panel, then nail the left and right panels to the back panel, using 1 1/8" finishing nails through the nailing strips. Let stand 30 minutes for the glue to set.

4 Nail the glide feet into the bottom of the front brace and the two side braces.

5 Attach a 48"-long piano hinge to the door cut in the back panel. Mount hinge and door to back panel. A self-centering drill bit will make attaching the hinge easier.

Making the Top

1 Cut 1/2"-thick plywood into a piece 21" × 33 1/4".

2 Find and mark the midpoint of the length of the workpiece. Scribe a line from the marked point to both corners on the long side opposite the midpoint, to form a 26 1/2" × 26 1/2" × 33 1/4" triangle.

3 Set the cutting depth of your circular saw to 3/4", and cut along your scribed lines to form the display top (C).

4 Set your circular saw blade to cut a 13° bevel, and cut a bevel along the edge of the display top. Align the cut carefully, so you retain the 26 1/2" × 26 1/2" × 33 1/4" dimensions on the bottom side of the workpiece.

5 Set the table saw blade to cut a 13° bevel, and the rip fence to 2". Rip two pieces of 1" × 2" stock 26 1/2" long, to make the top trim (D).

6 Set your table saw to cut a 50° bevel, and cut a 50° miter on one end of each top trim piece, where the trim pieces join at the front of the display. Be sure to keep the long side of the angle to the bottom, or in this case, toward the triangle-shaped top piece.

7 Set your table saw to cut a 40° bevel, and cut a 40° miter on the other end of each top trim piece.

8 Glue the top trim pieces to the edge of the top piece, and nail in position with 1 1/8" finishing nails.

9 Glue the top piece to the assembled base and nail in position with 1 1/8" finishing nails. Keep an equal overhang on the front two sides, but align the back side flush with the outside face of the back panel (B).

Finishing the Display

1 Sand the entire display, starting with 80-grit sandpaper, and working gradually through 100-grit to 150-grit sandpaper.

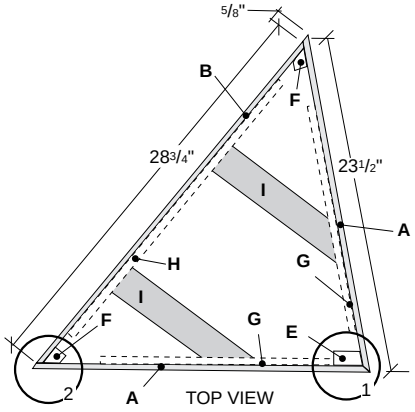
2 Fill nail holes and knot holes with wood filler, then finish-sand the entire workpiece.

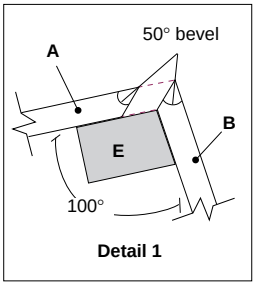
3 Apply multiple coats of paint for desired effect. NOTE: paint the inside with a white gloss paint to enhance the reflectiveness and brightness of the lights.

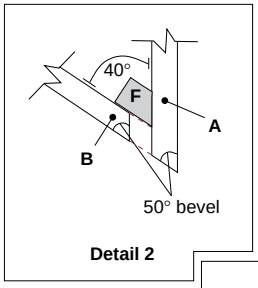
4 Attach a handle and door latches at this point. Consider installing a keyed latch and a recessed handle.

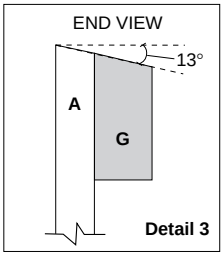
5 Assemble the fluorescent light fixtures and mount on the inside of the door panel with screws (be careful not to pierce the outside of the back panel). Drill an entry hole for the power cord through the lower portion of the back panel, and install a rubber cable grommet. **As you build and use the kiosk, be sure to check and comply with state and local fire safety and electrical codes in your area.**

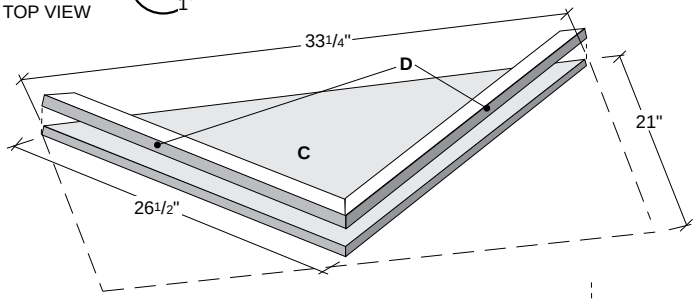
6 To use display, apply transparencies to the clear plexiglass with clear tape around the edges, making a graphic panel. Slide the assembled graphic panels into each window through the frame entry slots. Plug the display into an electrical outlet.

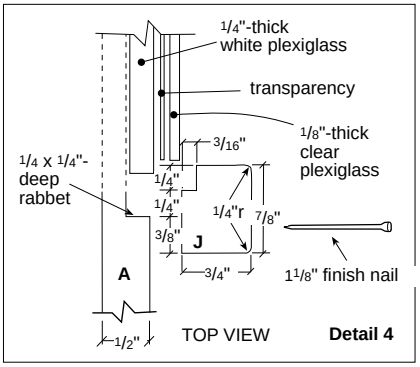


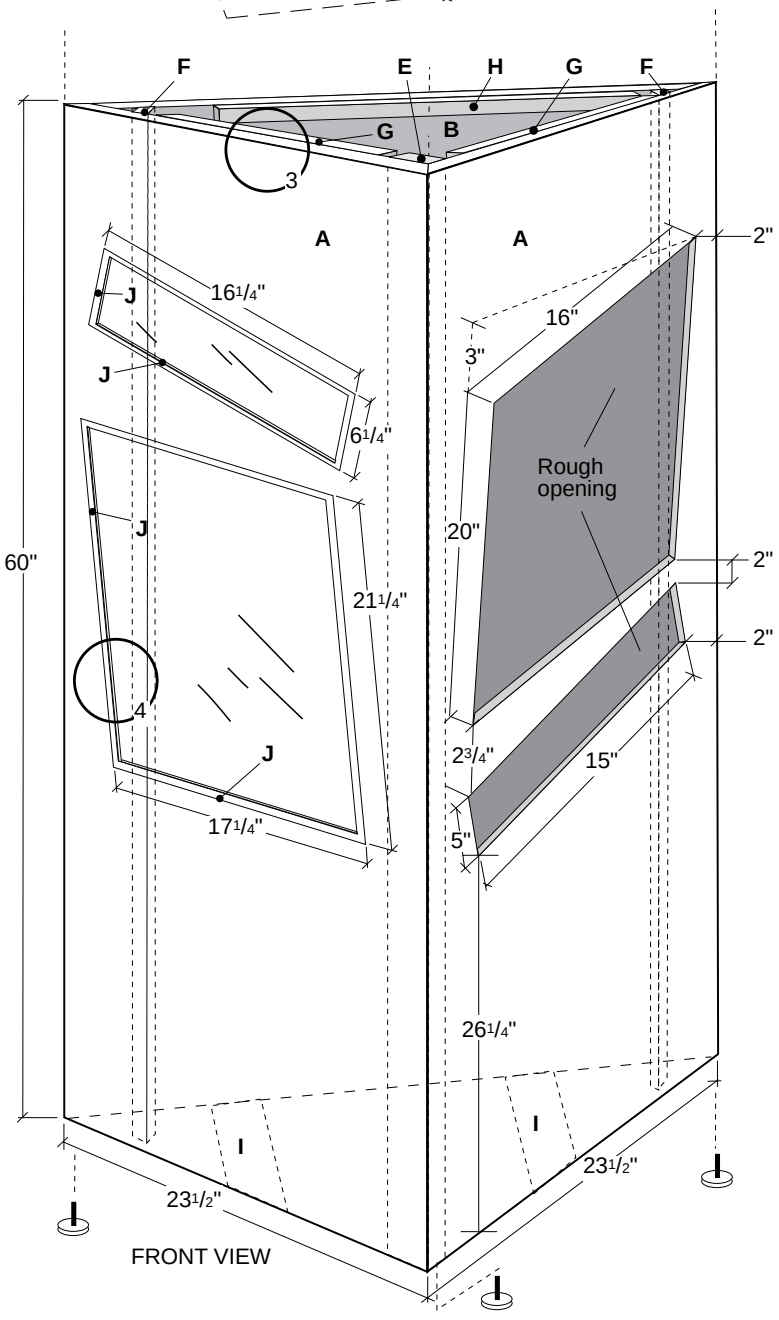


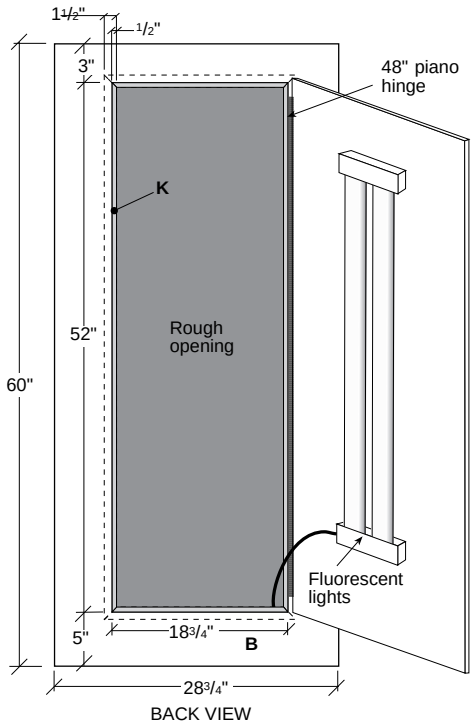












Cutting List

A	2	**Side panel**	1/2 x 23 1/2 x 66"
B	1	**Back panel**	1/2 x 28 3/4 x 60"
C	1	**Top**	1/2 x 21 x 33 1/4"
D	2	**Top trim**	1 x 2 x 26 1/2"
E	1	**Front brace**	1 x 2 x 66"
F	2	**Side brace**	1 x 2 x 60"
G	2	**Nailing strip**	1 x 2 x 18"
H	1	**Nailing strip**	1 x 2 x 24"
I	2	**Lower brace**	1 x 4 x 8"
J	1	**Window molding**	7/8 x 3/4" x 22'
K	1	**Door stop strip**	1/2 x 2 x 4 1/4"

Miscellaneous: 48" piano hinge, slide latch, 1/4"-thick white plexiglass, 1/8"-thick clear plexiglass, 1 1/8" finish nails, wood glue, white latex paint, nylon floor glides, fluorescent light panel.